Remarks

Claims 1, 5, 6 and 10-16 remain in this application. Claims 2-4 and 7-9 are previously canceled. Claims 17-83 are canceled in this amendment as being drawn to a non-elected invention. Claim 1 is amended to state that after the pH adjustment of the suspension to form a slurry of an aqueous protein material, that the slurry is not subjected to spray drying. Support for this amendment can be found, *inter alia*, on page 8, lines 28-29.

Rejection Under 35 USC §112

Claims 1, 5, 6 and 10-16 are rejected under USC §112, first paragraph, as failing to comply with the written description requirement. The Office Action states that the original specification supports the slurry not being subjected to spray drying (page 8, lines 28 and 29) and not just the protein as now set forth in instant claim 1.

Component (C) is a slurry of an aqueous protein material. This slurry is prepared by the process of steps (1) to (5), as disclosed on page 11, line 25 to page 12, line 9. On page 12, lines 21-27, it is stated that the protein material prepared by this process not be subjected to spray drying. The intent is to employ as (C) a protein already in a slurry, one that was never subjected to spray drying. That is, the protein material is prepared as an aqueous slurry. Dry protein powders that have undergone high heat treatment during the spray drying process cause a loss of some functionality, especially on solubility in the juice drink. Applicant has amended claim 1 at (C)(4) that the slurry is not spray dried. Support for this amendment can be found, *inter alia*, on page 12, lines 21-24. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Rejection Under 35 USC §102

Claims 1, 5, 6 and 10-16 are rejected under 35 USC §102(e) as being anticipated by Shen (US Patent Application No. US 2004/0258827).

Shen discloses the preparation of a stable suspension of a protein material in an acidic beverage. The suspension is prepared by blending (A) a hydrated and homogenized protein material slurry with (B) a hydrated protein stabilizing agent-acid dispersion and pasteurizing and homogenizing the blend. Shen teaches away from the present invention. In Shen, the protein is dry. It is hydrated prior to use. In the present invention, the protein in the slurry is not dried. A

liquid soy protein slurry that is obtained prior to the spray drying process has a high protein concentration and full functionality. As such, it can be used in acid beverages that would have a high degree of stability over a long period of storage time at ambient temperature. This liquid soy protein already in a slurry will retain all its functionality, since there is no phase transition generated by the spray drying process. The spray drying step tends to decrease the solubility of the protein in the acid beverage which then generates a large amount of insoluble particles in the acid beverage. The decrease in solubility of a spray dried protein is due to the larger particle size generated upon spray drying.

As stated in M.P.E.P. §2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Shen discloses a protein slurry prepared by adding a dried soy protein product to water. Shen does not teach the use of a protein slurry wherein the protein is not subjected to spray drying, as required by present claim 1, as amended. Shen fails to disclose each and every limitation of amended claim 1. As such, claims 1, 5, 6 and 10-16 are novel over Shen. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 1, 5, 6 and 10-16 are rejected under 35 USC §102(e) as being anticipated by Huang (US Patent No. 6,887,508).

Huang relates to a protein stabilizing agent for stabilizing a protein suspension in an aqueous acidic liquid such as a juice. The protein stabilizing agent is comprised of a high methoxyl pectin and a propylene glycol alginate. However, the present invention, as amended, claims a hydrated protein stabilizing agent selected from the group consisting of a high methoxyl pectin. Further, the soy protein in Huang is a dried isolate as stated in col 4, lines 63-67. In Examples 1-5 of Huang, the soy protein isolates of Supro Plus 675, FXP 950, FXP HO120, and Supro XT 40 are added to water in order to hydrate the soy protein. Hydration causes the protein to incorporate water. The present invention soy protein slurry used in component (C), as amended, is not subjected to spray drying conditions. As stated above in Shen, there are advantages in not subjecting the soy protein to the spray drying step. Liquid soy protein that is obtained prior to the spray drying process has a high protein concentration and full functionality. As such, it can be used in acid beverages that would have a high degree of stability over a long period of storage time at ambient temperature. A liquid soy protein will retain all its

functionality, since there is no phase transition generated by the spray drying process. The spray drying step tends to decrease the solubility of the protein in the acid beverage which then generates a large amount of insoluble particles in the acid beverage. The decrease in solubility of a spray dried protein is due to the larger particle size generated upon spray drying.

As stated in M.P.E.P. §2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The protein stabilizing agent of Huang is comprised of a high methoxyl pectin and a propylene glycol alginate. In present claim 1, as amended, the protein stabilizing agent is selected from the group consisting of a high methoxyl pectin. Further, Huang discloses a protein slurry prepared by adding a dried soy protein product to water. Huang does not teach the use of a protein slurry wherein the protein is not subjected to spray drying, as required by present claim 1, as amended. Huang fails to disclose each and every limitation of amended claim 1. As such, claims 1, 5, 6 and 10-16 are novel over Huang. Reconsideration and withdrawal of this ground of rejection is respectfully requested

Claims 1, 5, 6 and 10-16 are rejected under 35 USC §102(e) as being anticipated by Patel (US Patent No. 6,811,804.

Patel et al. is directed to the preparation of a beverage employing a soy protein having an isoflavones level of from 0.5 mg isoflavone per gram of soy protein, a stabilizing agent and vegetable/fruit juices. The pH of the beverage is about 4. The soy protein in Patel et al. is also a dried isolate as stated in col 10, lines 23-28. In the present invention, as amended, the protein slurry is not prepared from a dried protein product. There are advantages in not subjecting the soy protein to the spray drying step. Liquid soy protein that is obtained prior to the spray drying process has a high protein concentration and full functionality. As such, it can be used in acid beverages that would have a high degree of stability over a long period of storage time at ambient temperature. A liquid soy protein will retain all its functionality, since there is no phase transition generated by the spray drying process. The spray drying step tends to decrease the solubility of the protein in the acid beverage which then generates a large amount of insoluble particles in the acid beverage. The decrease in solubility of a spray dried protein is due to the larger particle size generated upon spray drying.

As stated in M.P.E.P. §2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Patel et al. disclose a protein slurry prepared by adding a dried soy protein product to water. Patel et al. do not teach the use of a protein slurry wherein the protein is not subjected to spray drying, as required by present claim 1, as amended. Patel et al. fail to disclose each and every limitation of amended claim 1. As such, claims 1, 5, 6 and 10-16 are novel over Patel et al. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Rejection Under 35 USC §103(a)

Claims 1, 5, 6, and 10-16 are rejected under 35 USC §103(a) as being unpatentable over Shen (US Patent Application No. 2004/0258827) or Huang taken together with Hoer et al.

In both Shen and Huang, discussed above, the soy protein is dried. In the present invention, the soy protein remains as a slurry. Hoer et al. are cited for their teaching of drying soy milk protein by the use of enzymatic hydrolysis to obtain a product of excellent functionality. It is stated in the Office Action that it would have been obvious to one having ordinary skill in the art at the time of the invention to have adopted the drying procedure in Hoer et al. to provide a dried protein having better functionality. However, the Patent Office does not appreciate that the present claims do not employ an enzyme as does Hoer et al. In the present claims, functionality is preserved without using an enzyme.

Hoer et al. teach the enzymatic processing of soy protein such that the soy protein is used as a "drop-in" additive. From col 9, beginning at line 15, it is stated that

> "The functional characteristics ... includes capacity to serve well as a water and fat binder in the slurry for homogenous dispersion thereof rather than separation. This facilitates its utility in many products as a direct substitute for dairy products."

There is no fat or vegetable oil in the present invention and, as such, there is no binding demonstrated by the soy protein. Additionally, no enzyme is employed to preserve functionality. Furthermore, the Hoer et al. product is only utilized in dairy products. The Hoer et al. product does not have utility in the present invention since the present invention is an acid beverage having a pH of from 3.0 to 4.5. Dairy products are not soluble at this pH.

In order for the Office to show a *prima facie* case of obviousness, M.P.E.P. §2143

requires that the Office must meet three criteria: (1) the prior art reference must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference, and (3) there must be some reasonable expectation of success. The Office has clearly failed to meet its burden under (1) and/or (2) above, since the teachings of Shen (US Patent Application No. 2004/0258827) or Huang taken together with Hoer et al. fail to teach or suggest all of the claim limitations of Applicant's claim 1, and further that there is no motivation by one of ordinary skill in the art for employing limitations present in Applicant's claim 6 which depends from amended claim 1, not present in the combination with Shen (US Patent Application No. 2004/0258827) and Hoer et al. or Huang and Hoer et al. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 1, 5, 6, and 10-16 are rejected under 35 USC §103(a) as being unpatentable over Wong (US Patent Application No. 2005/0202147).

In the Office Action, the Examiner stated that the rejection under 35 USC §103(a) might be overcome by:

> (1) a showing under 37 CFR §1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another";
>
> (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR §1.131; or
>
> (3) an oath or declaration under 37 CFR §1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 USC 104, together with a terminal disclaimer in accordance with 37 CFR §1.321(c).

Wong et al. is directed to an acidic beverage composition utilizing, among other components, a hydrated protein material having a combination of an inositol-6-phosphate content, an inositol-5-phosphate content, an inositol-4-phosphate content and an inositol-3-phosphate content of less than 8.0 μmol/g. Within the present invention, the claimed subject matter protein is not a reduced inositol phosphate protein.

In order to remove this rejection, Applicants are complying with (3) above and submit a declaration under 37 CFR §1.130 stating that the application and reference are currently owned by Solae, LLC and that the inventor Theodore Wong named in the application is the prior inventor under 35 USC 104, together with a terminal disclaimer in accordance with 37 CFR §1.321(c). Reconsideration and withdrawal of this ground of rejection is respectfully requested.

Claims 1, 5, 6, and 10-16 are rejected under 35 USC §103(a) as being unpatentable over Klavons et al. (US Patent No. 5,286,511).

Klavons et al. relate to a process for imparting desirable cloud to beverages. In the process, pectin is solubilized in water and added to a juice having a pH of 3.7. A soy protein isolate is added to water and the pH is adjusted to 11 with potassium hydroxide (see col 3 lines 43-44. It is this alkaline solubilized isolate that is added to the acidic solubilized pectin/juice mixture (claim 6). In the present invention, the protein which is not subjected to spray drying, is prepared at a pH of from about 4.0 to about 6.0 and then combined with the hydrated pectin. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

For the foregoing reasons, it is submitted that the present claims are in condition for allowance. The foregoing remarks are believed to be a full and complete response to the outstanding office action. Therefore favorable reconsideration and allowance are respectfully requested. If for any reason the Examiner believes a telephone conference would expedite the prosecution of this application, it is respectfully requested that he call Applicant's representative at 314.982.2409.

If any additional fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-0421.

Respectfully submitted,
SOLAE, LLC

Date: October 25, 2006

James L. Cordek
Registration No. 31,807

PO Box 88940
St. Louis, MO 63188
314.659.3218